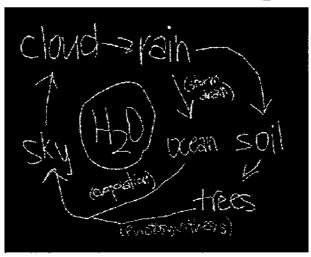
4F Sample Assembly Programs

Following the success of last year's show "CANOPY"

STOPPP and Will & Co. present

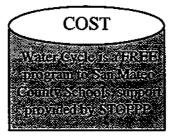
Water Cycle

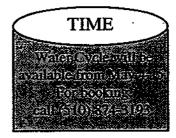


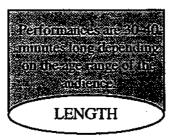
Design: Minoe Bonere, Ink

A highly interactive assembly for K-6. Water Cycle is a twoperson play that introduces children to our urban forest and the natural cycles at work within it. The play reaches for a child's imagination through drama, visual humor and student interaction. Through the use of non-verbal disciplines, students discover they can make a difference and are able to translate what they have learned into new daily habits!

When Nell is sent to the store, her simple journey takes her through the City Forest. She meets Mr. Tree, who is dehydrating, Mr. Squirrel, who's got the blues from lack of food from the trees, Catch Basin, who's choking from the trash in the streets, and Grass-iolio, who mourns the loss of his beloved Chlorophylla.











To book call (510) 874-3193

Canopy

Written by Colin Cox & JuliAnn Taylor Produced in conjunction with TreePeople

Canopy is a two-person play enabling young audiences, through a hands-on experience, to understand the importance of preserving and nurturing the world around us. Melaleuka and Jack Aranda take us on a fabulous journey through the treasures of the city forest, recruiting audience participation and surprise student "guest stars". As they meet the tree surgeon, the treasure man and the litterbug, we discover what needs to be done to preserve our natural heritage. A perfect introduction for primary level, it is a vital piece of theatre supporting the aims of the teacher in the classroom.

The first in the series of education through interactive theatre, Canopy was co-created by TreePeople and initially contracted by theStormwater Division of the City of Los Angeles. Canopy has played to over 250,000 schoolchidren and parents.

Available in English, Spanish and Spanish/English.

Running Time: 40 minutes

Grade levels: 1-6

Also see:

Oil's Well That Ends Well

Water Cycle: Where Does it Come From Where

Does It Go?

Juan & Oona's Math Adventure



photo credit: Fran de Leon

Touring Programs Home Page About Will & Company E.Mail

"CANOPY" PRE-ASSESSMENT

San Mateo Countywide Stormwater Pollution Prevention Program (STOPPP) welcomes your class to "Canopy," an assembly program which teaches children about the importance of trees in our environment and the purpose of the storm drain system in our communities. To evaluate the effectiveness of the "Canopy" assembly program, STOPPP depends on teacher and student feedback. Students' responses recorded on this pre-assembly gauge will be used to quantify what they learned from the assembly program. Please take a few minutes to go over this gauge and the vocabulary list to introduce "Canopy" to your students before the performance. (Please note that the instructional materials enclosed were developed for 4th grade students. The materials may be adapted accordingly for upper and lower grades.)

Teacher'	's Name:	School:
Grade: _		Number of students in your class:
swim, play i Which beach Ask students	n the sand? List resp hes do they go to? List if there has ever been	favorite beach activities are. Do they fish? Do they surf, jet ski, water ski, conses on the board. ist responses on the board. en a time when they didn't want to play in the beach water. Ask them to was too cold, the water didn't look clean, or they would rather play in the sand
we can help		ogram entitled "Canopy" is coming to their school to talk about trees and how Bay, Ocean, Lagoon—clean. Before they see "Canopy," STOPPP would like uestions:
storm drain,	it flows underground	te about storm drains, those grates you see along curbsides. When water enters a distributed through some pipes and channels. Where does it go after that? How many of er of students for each response.)
a. b. c.	the water gets cle	irectly to the Bay/Lagoon/Ocean. aned at a treatment facility then goes to the Bay/Lagoon/Ocean.
	_	ne toilet, or take a bath, the water flows through the pipes in your home. Where eaves your home? How many of you think that:
a. b. c.	the water gets cle	irectly to the Bay/Lagoon/Ocean. aned at a treatment facility then goes to the Bay/Lagoon/Ocean.
Review the a assembly.	attached vocabulary	list with your students to familiarize them with words they might hear during the

While supplies last, receive a free gift for each of your students by mailing your completed pre- and post-assessments (blue sheets) to:

Robin Plutchok, Woodward-Clyde Consultants, 500 12th Street, Suite 500, Oakland, CA 94607.

"CANOPY": POST-ASSESSMENT

In order for the San Mateo Countywide Stormwater Pollution Prevention Program to improve its "Canopy" assembly program, we depend on teacher and student feedback. Please take a few minutes to go over this questionnaire with your students.

Teacher's l	me: School:	
Grade:	Number of students in your class who attended the assembly program?	
After the stude	s watch "Canopy," gauge what they have learned by asking them the following	g questions:
(1) When wate after that?	nters a storm drain, it flows underground through some pipes and channels. Yow many of you think that: (Count the number of students for each response.	Where does it go
a. b. c.	he water flows directly to the Bay/Lagoon/Ocean. The water gets cleaned at a treatment facility then goes to the Bay/Lagoon/Ocea Ther:	ìn.
(2) When you wastewater	ish the toilet, or take a bath, the water flows through the pipes in your home. o after it leaves your home? How many of you think that:	Where does that
a. b. c.	the water flows directly to the Bay/Lagoon/Ocean. The water gets cleaned at a treatment facility then goes to the Bay/Lagoon/Ocean. Ther:	an.
(3) Ask your s	dents to name some things we can do to prevent stormwater pollution?	
(4) What did t	students learn that they didn't know before?	
(5) What did t	students like about the performance?	
(6) What did to	students not like about the performance?	
aronn.		

STOPPP would be very interested in hearing about follow up activities that you have conducted in your class. Please contact Vern Bessey at (415) 579-7751 if you have an exciting project you'd like to share with the County, e.g., videotape of student plays, correspondence with policy makers, pictures of a field trip, journal entries, dioramas... anything showing your students engaged in stormwater pollution prevention activities.

Thank you for your participation.

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VOCABULARY LIST

Stormwater

⇒ Rain water

Waterways

⇒ Streams, creeks, rivers, the Bay and the Pacific Ocean.

Stormwater Pollution or

Urban Runoff

⇒ Water from rain, hoses or sprinklers that falls on roof tops, streets, sidewalks, and yards in urban areas. This water does not get absorbed into the ground but flows to lower areas. Urban runoff normally flows through storm drains directly into local creeks and waterways, without treatment.

Storm Drain System

⇒ A network of aboveground and underground drains, pipes, and ditches that collects stormwater and runoff and carries it to local waterways. The system was designed to protect property and people in case of floods.

Watershed

⇒ The upstream land area whose runoff contributes to a common body of water, e.g., the San Francisco Bay watershed consists of all mountains, hills, cities and towns bordering and upstream from the Bay.

Wastewater

⇒ Sewage water from toilets, sinks, showers, and washing machines, from residential or commercial buildings. Industries also have wastewater, e.g., an oil refinery has a stream of toxic wastewater that must be treated.

Wastewater Collection System

⇒ Through underground pipes, wastewater from homes, industries and businesses is carried to a local treatment plant where it is cleaned before the wastewater reaches local waterways. These pipes are separate from those used in the storm drain system.

Wastewater Treatment Facility

⇒ A facility that cleans sewage water before releasing it into local waterways.

"CANOPY" ASSEMBLY PROGRAM: SUGGESTED FOLLOW-UP CLASS FIELD TRIPS

A visit to any one of the following facilities/locations would provide greater understanding of the importance of clean water.

The Coyote Point Museum in San Mateo familiarizes visitors with the Bay Area ecology and environmental issues via live animal presentations, innovative dioramas, and stimulating programs. Programs include onsite, hands-on activities; hikes to the foothills, tidepool explorations; and in-class presentations. (415) 342-7755

The Bay Model Visitor Center in Sausalito, Marin County, displays a hydraulic model of the San Francisco Bay which is used to "examine issues of oil spills, salt water intrusion and the dispersion of pollutants." Guided tours are available.

(415) 332-3871, Ron McDonald

The Harry Tracy Filter Plant in San Bruno is a water filtration plant which provides drinking water to residents from San Francisco all the way to Redwood City. (415) 872-5936, Paul Mazza

The Pulgas Water Temple, near the Filoli Flower Center, in Redwood City mimics a Greek temple and was originally built in commemoration of the beginning of the Hetch-Hetchy water system, from Moccasin, California to Palo Alto, California. See your local library for more information. For directions to the site, call the San Francisco Water Department (415) 872-5900.

Local wastewater (sewage) treatment plants: See for yourself how wastewater from residences, businesses and industries is treated before discharged into local waterways.

- Burlingame Wastewater Treatment Facility (415) 342-3727
- Daly City, North San Mateo County Sanitation District (415) 991-8208
- Half Moon Bay, Sewer Authority Mid-Coastside (415) 726-0124
- Millbrae, Wastewater Treatment Plant (415) 259-2388
- Pacifica, Wastewater Treatment Plant (415) 738-7348
- Redwood City, South Bayside System Authority (415) 591-7121
- San Mateo, EMID Wastewater Treatment Plant (415) 377-4690
- South San Francisco, Water Quality Control Plant (415) 877-8634

The Palo Alto Baylands Nature Center promotes habitat preservation and appreciation. This program features nature walks through the Palo Alto Baylands in addition to arts and crafts projects. (415) 329-2506

The Hidden Villa Environmental Education Program "engages children and adults in hands-on, innovative programs promoting environmental awareness and multicultural understanding" through

participation on a 1600-acre organic farm and wilderness preserve. The HVEEP program shows children the impact of human lifestyles on the environment. (415) 949-8644

The Marine Science Institute provides marine science education to students via a boat trip, a Bayside discovery lab, and a Marine Science Mobile which brings the Bay to the classrooms. Students conduct hands-on activities, explore living organisms in their natural habitats, and learn to appreciate the natural vitality of the area. (415) 364-2760

The San Mateo Outdoor
Education Program is a week long residential program for fifth and sixth graders. Conducted in La Honda, California, the program develops students' knowledge about the environment, appreciation of nature, and involvement as citizens in an increasingly interdependent world.

(415) 802-5360

Visit your local recycling facility to find out what happens after your waste hauler collects your recyclable paper, cans, plastic bottles, or used motor oil. Students can observe the process of recycling first hand. Call your local recycling facility. See the yellow pages or call the local garbage company. (415) 637-1411, BFI Recyclery in San Carlos

"CANOPY" ASSEMBLY PROGRAM: SUGGESTED FOLLOW-UP CLASS ACTIVITIES

Be Part of the Solution: Class Action

Participate in local **Coastal Cleanup** activities in September, or adopt-a-beach, local creek or waterway. (415) 904-5200, Chris Perry

Stencil school or local storm drains. The most effective message has been the "No Dumping, Flows to Bay/Lagoon/Ocean" stencil on storm drains. Call your local STOPPP representative for more information.

Atherton	688-6529
Belmont	595-7426
Brisbane	467-1853
Burlingame	696-7230
Colma	997-8300
Daly City	991-8200
East Palo Alto	853-3189
Foster City	349-1200
Half Moon Bay	726-8260
Hillsborough	579-3811
Menlo Park	858-3420
Millbrae	259-2300
Pacifica	738-7348
Portola Valley	851-1700
Redwood City	780-7464
San Bruno	877-8828
San Carlos	595-1456
San Mateo, City of	377-4632
San Mateo County	363-4708
South San Francisco	877-8634
Woodside	851-6790

Write letters to your local elected official. See your local yellow pages for addresses. Small Group Or Individual Activities: Learn More about the Importance of Keeping Our Local Waterways Clean

Invite a guest speaker from STOPPP to your class. Call your local STOPPP representative (see phone number listed under stenciling activities).

Visit your local library for **books or videos** associated with a clean water message, such as:

- Island of the Blue Dolphin
- Magic School Bus: Weather
- Magic School Bus: The Water Works

Create a diorama, poster, map, slide show, brochure or video illustrating the difference between the sewage system and the storm drain system.

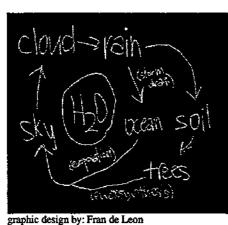
Create a model of a watershed (including mountains, towns, rivers, creeks, farms, cities, bay, and the ocean) demonstrating how communities and nature can impact water quality.

Develop a **skit**, **song**, **or poem** related to stormwater pollution prevention and perform it to the class (video tape if possible).

Develop and **conduct** a **survey** to find out how many of your neighbors and family members understand the difference between the storm drain system and the wastewater system. Compare results. Develop a brochure to educate those surveyed.

Have small groups of students inspect 3 local storm drains for stormwater pollution. What do they see in or around the storm drain? Have each group present findings. Compare findings among all the groups.

Create a chart of family practices which contribute to storm water pollution (e.g., car washing, changing motor oil, using a lot of fertilizers, etc.). Discuss alternatives which would prevent stormwater pollution (e.g., washing one's car at a car washing facility not in one's driveway; recycling used motor oil; or applying proper amounts of fertilizer).



Water Cycle

Where Does It Come From and Where Does It Go?

Written by <u>Colin Cox</u> & <u>Fran de Leon</u> in a co-production with TreePeople

When Nell is sent to the store to pick up some water, her simple journey takes her through the City Forest. She meets Mr. Tree who is dehydrating, Mr. Squirrel who's got the blues from lack of food from the trees, Grass-olio who mourns the loss of his beloved Chlorophylla, and Catch Basin who is choking from the amount of trash in the streets.

A highly interactive theatre assembly for K-6, the audience participates by representing landfills, recycling centers and the earth, with several students making on-stage appearances.

Co-created by TreePeople, "Water Cycle" is the long-awaited follow up to the hit show "Canopy", and once again utilizes Will & Company's trademark style of education through entertainment. Keep 'em laughing while they learn with "Water Cycle: Where Does It Come From and Where Does It Go?".

Running Time: 45 minutes Available in English, Spanish, and English/Spanish

Also see:
"Canopy"
"Juan & Oona's Math Adventure"

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photo credit: Fran de Leon

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